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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR   | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|------------------------|---------------------|------------------|
| 10/763,789  | 01/23/2004  | David W. Herbage       | A310429.2US         | 7920             |
| 36536 7590 10/20/2008<br>WYATT, TARRANT & COMBS, LLP<br>1715 AARON BRENNER DRIVE<br>SUITE 800<br>MEMPHIS, TN 38120-4367 |             |                        |                     |                  |
| EXAMINER<br>LEE, BENJAMIN P   |             |                        |                     |                  |
| ART UNIT<br>3641  |             | PAPER NUMBER           |                     |                  |
| MAIL DATE<br>10/20/2008   |             | DELIVERY MODE<br>PAPER |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/763,789

**Applicant(s)**

HERBAGE ET AL.

**Examiner**

BENJAMIN P. LEE

**Art Unit**

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 8, 9, 11-19 and 43-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-16 is/are rejected.
- 7) ☒ Claim(s) 1-12, 17-19 and 43-52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_



### **DETAILED ACTION**

1. Applicant has amended claims 1, 8, 9, 11, 13-19, canceled claims 7 and 20-42 and added new claims 43-52.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-6 and 8-19 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues that the "pyrophoric" flare disclosed by Brum does not teach Applicant's claimed "pyrotechnic" flare since "a pyrophoric flare is composed of a material that will ignite spontaneously when exposed to air" and pyrotechnic flares require an ignition source (page 11, par. 3). Examiner respectfully asserts that a pyrotechnic is defined as "of or relating to fireworks" ([www.bartleby.com](http://www.bartleby.com)) and pyrophoric is defined as "spontaneously igniting in air" ([www.bartleby.com](http://www.bartleby.com)) and thus do not provide adequate distinction between Applicant's invention and the invention of Brum. Examiner respectfully asserts that Applicant's claimed pyrotechnic flare could in fact designate a broad range of energetic materials including a pyrophoric such as that disclosed by Brum. The term "pyrotechnic" is simply a broader designator for a wide range of materials including pyrophoric materials. Further, Examiner asserts that the term "pyrotechnic" does not differentiate a spontaneously ignitable material since the spontaneously ignitable material (pyrophoric) disclosed by Brum constitutes a pyrotechnic material.

Applicant further argues that the decoy disks of Brum "are not permanently joined in a stack whereby the stack remains joined upon ejection from a flare launcher". In response, Examiner respectfully asserts that the decoy disks of Brum are at least "substantially immobilized" relative to each other for at least some portion of time during their deployment. Further, the term "permanently" as used by Applicant at least in claim 43 fails to add any specific limitation to the claim since nothing is "permanent" in this context. In reference to Applicant's stack pellets remaining joined upon ejection from a flare launcher, Examiner respectfully asserts that the stack of disks of Brum need only be capable of being removed from the "flare launcher" in a joined configuration (via the means for joining) and this need not be during the intended deployment scenario, i.e. during disassembly.

### ***Claim Objections***

3. Claims 1-12 are objected to because of the following informalities: The term "associated" in lines 5 and 6 of claim 1 fails to adequately establish the relationship between the "protrusion" and the "pellet". Appropriate correction is required.
4. Claims 43-52 are objected to because of the following informalities: In line 4 of claim 43, the term "permanently" fails to add any specific limitation to the claim since nothing is "permanent" in this context. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

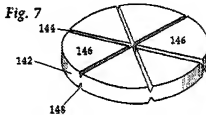
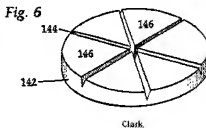
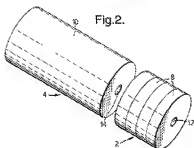
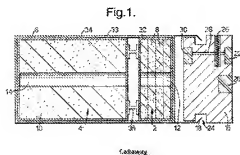
1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callaway et al. (WO 02/48641 A1) in view of Clark et al. (U.S. Patent 5,648,637).
6. In regards to claim 13, Callaway et al (henceforth referred to as Callaway) disclose a pyrotechnic flare pellet assembly for providing at least one of visual and infrared energy output (see Callaway page 1, par. 1), said pyrotechnic flare pellet assembly comprising:
- a plurality of pyrotechnic flare pellets made of at least one ignitable material (page 8, pars. 1-3);
- said plurality of pyrotechnic flare pellets are disposed along a longitudinal reference axis (see Callaway figures 1 and 2 following);

Callaway fails to teach a plurality of tapered grooves defined between each of said plurality of pyrotechnic flare pellets, wherein each of said tapered groove tapers toward said longitudinal reference axis. However, Clark et al (henceforth referred to as Clark) teaches multiple tapered grooves in each of the pellets running towards the "longitudinal axis" (see items 144 and 148 of Clark figures 6 and 7 following). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to incorporate tapered grooves as taught by Clark in the pellets of Callaway to increase the surface area or to help with breaking up the pellets upon dispersal.

7. In regards to claim 14, Callaway as modified fails to explicitly disclose that the plurality of tapered grooves comprises a plurality of interior angles an interior between about 5° and about 35°. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the grooves of Callaway as modified by Clark with any of various interior angles, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See *In re Aller*, 105 USPQ 233.

8. In regards to claim 15, Callaway as modified by Clark discloses that the plurality of tapered grooves is annularly disposed about said longitudinal reference axis. Note that the grooves of Callaway as modified by Clark are disposed around the pellet constituting an annular configuration.

9. In regards to claim 16, Callaway as modified discloses a means for substantially immobilizing each of said plurality of flare pellets relative to each other, said first flare pellet relative to said second flare pellet. Note that the pellets are "immobilized" when they are positioned in the flare assembly wrapped in aluminum foil (page 9, par. 1).



### ***Allowable Subject Matter***

10. Claims 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Further, claims 1-12 and 43-52 would be allowable if appropriate action is taken to obviate the objections.

The following is a statement of reasons for the indication of allowable subject matter: With respect to claim 1, the closest prior art fails to teach, in combination with



all the limitations of claim 1 a depression or groove complementarily configured to accommodate said protrusion. With respect to claim 17, the closest prior art fails to teach, in combination with all the limitations of the base claim, a rod that extends through said plurality of flare pellets.

### ***Summary/Conclusion***

11. Claims 13-16 are rejected and claims 1-12, 17-19 and 43-52 are objected to.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin P. Lee whose telephone number is 571-272-

8968. The examiner can normally be reached between the hours of 8:30am and 5:00pm on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/B. P. L./

Examiner, Art Unit 3641

/Bret Hayes/

Primary Examiner, Art Unit 3641